SIEMENS

en **Operating Instructions**

RDF300…, RDF340…, RDU340…

RDF/RDU… – the temperature controller that allows you to set the ideal room temperature you want. The controller provides comfort mode, energy saving mode and standby. The fan operates either in automatic mode or at the selected speed when using manual mode. You can either rely on the factory settings or make adjustments that suit your individual needs.
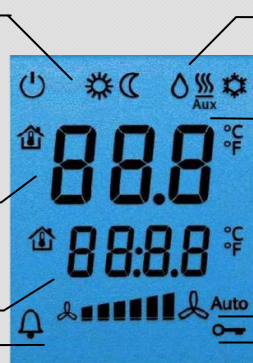
Display

⏻ Standby
☼ Comfort mode
☾ Energy Saving mode

Measured room temperature, setpoints and parameters
⌂ Symbol when actual room temperature displayed

Current time of the day or additional user information

🔔 Indication of alarm*

💧 Condensation in the room*
❄ Cooling demand / mode
♨ Heating demand / mode
♨ Electrical heater active

🌀 Auto Automatic fan
🌀▪ Low fan speed
🌀▪▪ Medium fan speed
🌀▪▪▪ High fan speed

🔑 Keypad locked

Operation and Settings

Adjusting operating mode
- Standby (⏻)
- Comfort mode (☼)
- Energy saving mode (☾)*

or by a system with manual changeover
- Standby (⏻)
- Comfort heating (☼♨)
- Comfort cooling (☼❄)

Adjusting fan mode
- Automatic fan (🌀Auto)
- Manual fan (🌀▪▪▪🌀)

No fan available on RDU…!

Colder / Warmer

* if configured by your HVAC installer

Are your rooms too warm or too cold?

+ - ☼	Pressing **+** or **-** allows you to increase or decrease the current room temperature setpoint for comfort mode. The maximum setting range is from 5...40 °C, unless it is limited by parameters P09 and P10.

Do you want to change from heating to cooling mode?

♨ / ❄	The changeover between cooling and heating is done either *automatically* by a heating / cooling changeover sensor or a remote changeover switch, or *manually* by pressing the operating mode button ↻. If the controller is configured *cooling only* or *heating only,* no changeover is possible (see parameter P01)
♨ ❄	By automatic changeover or continuous heating/cooling: Display shows that heating valve is open / Display shows that cooling valve is open
✋↻ ♨ ❄	By manual changeover: Display shows that controller is in heating mode / Display shows that controller is in cooling mode

Do you want to change the fan mode?

🌀	Press the 🌀 button until you have selected the desired fan mode.
🌀 Auto	In automatic mode, the fan speed is automatically selected by the controller and depends on the setpoint and the actual room temperature. When the room temperature has reached the setpoint, the fan remains in fan speed low (factory setting)
	In manual mode the fan operates independently and always runs at the same speed: Low, medium or high.
🌀▪▪	Low fan speed
🌀▪▪▪	Medium fan speed
🌀▪▪▪▪	High fan speed
	By a single-speed fan, the mode can be changed between 🌀Auto and 🌀▪▪▪.

Do you want to set your controller to standby?

↻⏻	Press the operating mode button ↻ several times until the display shows the ⏻ symbol to indicate that standby is selected.
⏻	In standby ⏻, only frost protection is active (factory setting = 8˚C), unless your HVAC installer has adjusted the factory settings.
	Changes by installer ✎ ☐ Frost protection: .... ˚C / ☐ Heat protection: .... ˚C

Do you want to change to Energy saving mode?

| ↻	The controller can be set in energy saving mode either via pressing the operating mode button ↻ if enabled (see parameter P02), or via an external contact such as window switch, key card switch etc.
⏻→☾←☼	If the external contact is activated the controller changes from comfort mode or standby to energy saving mode. Any operation by the user has no influence.
🌀 ☾	In energy saving mode the automatic fan speed is active.
	***Note:** If the controller is configured for manual heating / cooling changeover, the Energy saving mode can not be selected via operating mode button ↻.*

Do you want to lock the keypad?

⏻ / ○	If the keypad lock function is enabled by parameter P14, then pressing 7 seconds on the operating mode button ○, the keypad will be locked or unlocked respectively.
☐	If "Auto lock" is configured, then the controller will automatically lock the keypad after 30 seconds of the last adjustment.

Reminder clean filter!

♧ FIL	This message reminds you to clean the filter on your HVAC equipment. It will appear after ✎.................... "fan operating hours" and disappear when the controller is set to standby (○). *This reminder must be configured by your HVAC installer.*

Alarm!

♧ AL1 ♧ AL2	This alarm message tells you an external alarm has occurred: ♧ **AL1 :**✎..................................... ♧ **AL2 :**✎..................................... *The alarms are configured by your HVAC installer*

Commissioning (by qualified HVAC installer)

To adapt the controller to your system and optimize the control performance, a number of control parameters can be adjusted. This can also be made during operation without opening the controller.

Control sequence

░▒▓	The controller can be used in systems either for *heating only* or *cooling only*, *manually selection of heating or cooling*, or *automatic heating / cooling changeover*. Depending on the selected application, the relevant modes are available and can be adjusted by commissioning parameter P01 if needed. The factory setting for 2-pipe and single duct application is "*Cooling only*", and for 4 pipe application "Heating and Cooling"

Recalibrating the sensor

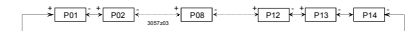| 🏠	If the room temperature displayed by the controller does not agree with the temperature effectively measured, the temperature sensor can be recalibrated. With parameter P05 the temperature can be adjusted by + or – 0.5 °C up to a maximum of + / - 3 °C.

Energy saving mode

☾ ⚠	If you want to change the factory-set temperature setpoints (15 °C for heating and 30 °C for cooling), the parameter P11 and P12 need to be adjusted. **Important:** The setpoint of energy saving mode can be set to **OFF**; this means that the controller is then not active! **Risk of frost,** i.e. no protective heating or cooling function.

Control parameter

If you want to change the control parameters, proceed as follows:

⏻ / ○	1. Set the controller to standby ⏻	P01 P02 3057a03 P08 P12 P13 P14
+ / -	2. Press **-** and **+** simultaneously for a minimum of 3 seconds. Release them and, within 2 seconds, press the **+** again for 3 seconds. The display will show "P01".	
+ / -	3. Select the required parameter by repeatedly pressing the **+** or **–** button.	
+ / -	4. Press **+** and **–** simultaneously, the current value of the selected parameter starts to flash, which can be changed by repeatedly pressing **+** or **-**.	
+ / -	5. By pressing **+** and **-** simultaneously again the next parameter will be displayed.	
	6. If you wish to display and change additional parameters, repeat steps 3 through 5.	
	7. 10 seconds after the last display or setting, all changes are stored and the controller will leave parameter enter mode.	

Para-meter	Controller's parameter factory settings:		Setting range	RDF3… RDU340.
P01	Control sequence	*2-pipe…*: [0…3] 1 (Cool only) *4-pipe:*. [2…4] 4 (Heat&Cool)	0:= Heating only 1:= Cooling only 2:= Manual H or C 3:= Auto Changeover 4:= Heating & cooling	
P02	Mode selection by user operating mode button	1 (Stb, Comf)	1 = Stb, Comf 2 = Stb, Comf, Eco	
P04	Selection of °C or °F	°C	°C or °F	
P05	Sensor calibration	0.0 K	– 3 ... +3 K	
P06	Standard temperature display	0 (Room temp.)	0:= Room temp 1:= Setpoint	
P07	Additional user info	0 (no display)	0:= no display 1:= Temp in °C + °F	
P08	Comfort basic setpoint	21 °C	5 ... 40 °C	
P09	Minimum setpoint limitation in Comfort (Wmin$_{Comf}$)	5 °C	5 ... 40 °C	
P10	Maximum setpoint limitation in Comfort (Wmax$_{Comf}$)	35 °C	5 ... 40 °C	
P11	Setpoint of heating in Energy Saving (Wheat$_{Eco}$)	15 °C	OFF, 5 °C…Wcool$_{Eco}$	
P12	Setpoint of cooling in Energy Saving	30 °C	OFF, Wheat$_{Eco}$…40°C	
P13	Electrical heater in cooling mode	ON	OFF:= disabled ON:= enabled	
P14	Keypad lock (Pressing 7 seconds on the operating mode button ○, the keypad will be locked or unlocked respectively)	0 (Disabled)	0:= Disabled 1:= Auto lock 2:= Manual lock	

✎ Please record all changes you make! (all temperature settings can be made in increments of 0.5 K)